## REMARKS

The Non-final Office Action dated February 7, 2006 has been reviewed and these remarks are responsive thereto. New claims 40-50 have been added. No new matter has been added. Claims 30-50 are pending.

Rejection under 35 U.S.C. § 101

Claims 35, 36, and 37-39 were rejected under 35 U.S.C. 101 for being directed to non-statutory subject matter. The Office Action asserts that claims 35, 36, and 37-39 are drawn to functional descriptive material. This rejection is respectfully traversed.

Claim 35 and 38 recite an architecture comprising a parser to parse the XML document into a stream of elements including a stream of schema elements and a stream of data elements, a converter to convert the stream of schema elements into data type definition (DTD) objects using an API and to validate the stream of data elements using the DTD objects, and a schema node factory to pass valid data elements to an application using the API. Claim 36 recites a computer implementing the architecture. Claim 37 recites a client-server system comprising a server, and a client and server implementing the architecture. Claim 39 recites a system comprising means for parsing an XML document into a stream of schema elements and a stream of data elements, a means for converting the schema elements into DTD objects, means for validating the data elements using the DTD objects, and a means for passing valid data elements to an application using the API.

The Office Action cites MPEP 2106.IV.B.1(a) and asserts that data structures not claimed as embodied in a computer-readable medium are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer.

However, the cited claims do not claim a data structure that is not capable of causing functional change as the Office Action asserts. On the contrary, claims 35 and 38, for example, recite an architecture comprising a parser that parses an XML document into a stream of elements. The architecture further includes a converter to convert the stream of elements into DTD objects and a schema node factory to pass valid data elements to an application. Clearly, the cited claims recite causing functional changes.

MPEP 2106.IV.B.1(a), cited by the Office Action, further states that even if a computer program is cited, if the computer program is being claimed as part of an otherwise statutory manufacture or machine, or if the computer program is used in a computerized process where the computer executes the instructions set forth in the computer program, then "the claim remains statutory irrespective of the fact that a computer program is included in the claim." See MPEP 2106.IV.B.1(a). Only if the claimed invention *taken as a whole* is directed to a mere program listing is the claim "descriptive material *per se*" and hence nonstatutory. In the present case, the claims do not recite "a mere program listing." As such, withdrawal of the rejection is respectfully requested.

Rejection under 35 U.S.C. § 103(a)

Claims 30, 31, 33, 34, and 36-39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dougherty ("XML Authority Ends Waiting Games for Schema Developers"), in view of Admitted Prior Art, Beyeh (U.S. Patent No. 6,012,098) and XML Authority ("XML Authority Product Overview"). This rejection is respectfully traversed.

Claim 30 recites parsing an XML document into a stream of schema elements and data elements, converting the stream of schema elements into data type definition (DTD) objects, validating the stream of data elements using the DTD objects, and if valid, passing the stream of data elements to an application.

The Office Action asserts that Dougherty and XML Authority discloses parsing and converting. The Office Action admits that Dougherty and XML Authority fails to teach or suggest validating or passing but relies on Admitted Prior Art to cure the deficiencies of Dougherty and XML Authority. Beyeh is cited as supposedly disclosing an API.

Even assuming *arguendo* that Dougherty and/or XML Authority discloses parsing and converting as the Office Action contends, there would have been insufficient motivation for one of ordinary skill in the art to combine Dougherty and/or XML Authority with "Admitted Prior Art" (i.e., FIG. 2 of the instant specification).

The Office Action cites FIG. 2 of applicant's disclosure as disclosing validating and passing. FIG. 2 illustrates a method of processing XML documents (page 5, lines 8-9) in which XML data is parsed by a parser 22 (page 5, lines 9-10) into a list of events (page 5, line 12). The parser 22 calls a namespace node factory 24 to output DTD events to a DTD node factory and to output data events to a validation node factory 30 (see page 6, lines 7-11 and FIG. 2). The DTD node factory 26 builds DTD objects 32 based on the DTD events received from the namespace node factory 24 (see page 6, lines 12-13).

FIG. 2 and the accompanying description at pages 5-6 in the specification do not disclose converting a stream of schema elements into data type definition (DTD) objects. Rather, as set forth above and at pages 5-6 and FIG. 2 of the specification, an XML parser causes a namespace node factory 24 to output DTD events to a DTD Node factory and the DTD Node factory builds DTD objects based on the received DTD events. Indeed, as set forth in the specification at page 6, line 22 - page 7, line 4, the architecture illustrated in FIG. 2 "is configured for DTD-specification considerations" and is incapable of handling more extensible XML-data schemas (page 7, lines 5-6).

The Office action asserts that Dougherty and XML Authority disclose converting XML schema to DTD and one of ordinary skill in the art would somehow have been motivated to convert XML schema to DTD objects in the FIG. 2 implementation disclosed in the specification so that "it would not limit the user to any particular schema implementation" (see Office Action, page 4). This is not a motivation to combine references but rather, is a conclusion the Office Action has arrived at based on impermissible hindsight.

To establish *prima facie* obviousness, there must be some suggestion or motivation to modify the references or to combine reference teachings. The teaching or suggestion to make the combination must be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Also, "to support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain why the combination of the teachings is proper. *Ex parte Skinner*, 2 USPQ2d 1788 (Bd. Pat. App. & Inter. 1986).

In the present case, even assuming that the Office Action's assertion that Dougherty and/or XML Authority discloses "converting XML schema into DTD's" as the Office Action asserts, one of ordinary skill would not have been motivated to combine Dougherty and/or XML Authority with FIG. 2 of the specification. In the implementation illustrated in FIG. 2 of the specification, a parser 22 parses XML data (page 6, line 1) and calls a namespace node factory 24, which outputs DTD events to a DTD node factory 26 (page 6, lines 9-11). The DTD node factory 26 builds DTD objects from the DTD events

received from the namespace node factory 24 (page 6, line 12). Notably, the implementation in FIG. 2 does not convert an XML schema to DTD objects. Rather, DTD objects are built from DTD events by the DTD node factory 26. Hence, there would have been no motivation to one of ordinary skill in the art to then apply a teaching of "converting XML schema into DTD's" into FIG. 2. This is because there is no need to do so, the DTD objects being built from DTD events and not being created from converted XML schemas.

In fact, the purpose of the implementation of FIG. 2 is to build DTD objects from received DTD events and not to convert XML schemas into DTD objects. Also, the principle of operation of FIG. 2 involves building DTD objects from DTD events and does not include converting XML schemas to DTD objects. Nor is there any suggestion in prior art references to do so.

It is well established that if a proposed modification of a reference would render the prior art invention being modified unsatisfactory for its intended purpose or if the proposed modification of the prior art would change the principle of operation of the prior art invention being modified, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). In the present case, "converting XML schemas into DTD's" would change the principle of operation. Indeed, DTD objects would be unable to be built from DTD events by the DTD node factory 26 if the input to the DTD node factory 26 were to be "converted" to an unrecognizable form. If the DTD node factory 26 is unable to build DTD objects, then the modified implementation in FIG. 2 of the specification in which the input to the DTD node factory is "converted" to an alternate unrecognizable form would be unsatisfactory for its intended purpose.

Therefore, it is respectfully submitted that there would have been insufficient suggestion or motivation for one of ordinary skill in the art to modify or combine the references as suggested by the Office Action. As such, the Office Action has failed to establish prima facie obviousness. Withdrawal of the rejection is respectfully requested.

Claims 34 and 39 are similar to claim 30 and are allowable for at least the reasons set forth above for claim 30. Claims 31, 33, 36, and 38 depend from claim 30, 34 or 39 and are therefore allowable for at least the reasons set forth above for claims 30, 34, and 39.

Claims 32 and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dougherty, Admitted Prior Art, and Beyeh in view of Hickman (U.S. Patent No. 6,564,252). This rejection is respectfully traversed.

Claim 32 depends from claim 30 and claim 35 depends from claim 34. As set forth above, Dougherty, Admitted Prior Art and Beyeh, either alone or in combination fails to teach or suggest claim 30 or claim 34. Hickman fails to cure the deficits of Dougherty, Admitted Prior Art and Beyeh with regard to independent claims 30 and 34. Hickman is cited by the Office Action as disclosing tables. Even assuming *arguendo* that the Office Action's assertion is correct, Hickman still fails to teach or suggest claim 30 or claim 34, nor does the Office Action assert that Hickman does.

Therefore, it is respectfully submitted the rejection of claim 32 and 35 should be withdrawn.

New claims

New claims 40-50 depend from claim 30 or 34. Claims 40-50 are believed to be allowable over the cited references.

CONCLUSION

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the above Application is requested. Based on the foregoing, Applicants respectfully requests that the pending claims be allowed, and that a timely Notice of Allowance be issued in this case. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check please charge any deficiency to Deposit Account No. 50-0463.

Respectfully submitted,
Microsoft Corporation

Date: August 3, 2006
Microsoft Corporation
One Microsoft Way
Redmond WA 98052-6399

By: _____
Stephen C. Sul, Reg. No.: 48,303
Attorney for Applicants
Direct telephone (425) 704-0669

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